

## Holding Device

### Abstract

A holding device comprising two elongated portions, the first portion of which is flat on one side and double curved on the opposing side and having a recessed section which fits with the second portion so as to align the second portion with the first said portion to facilitate the alignment of the magnetic parts of the holding device so as always to make contact correctly. The flat side of the first said portion is used to mount the device onto any flat surface by means of screws or by mounting tape, and a second elongated, double curved portion designed to fit the recessed alignment area of the said first portion and is attached to the first said portion by means of matching hinge points and with a corrosion free hinge pin, both said portions having matching mating surfaces, and one of the said portions having either a piece of ferrous material or a magnet encapsulated and the opposing portion having magnetic material encapsulated in order to attract the second said portion to the first said portion. Thereby, holding until deliberately removed, various materials between the two said opposing portions, such as, but not limited to, a kitchen towel.

**Field of search** 248/205,206,339,24/329/D6/548/211/89,  
248/304,316,222,339/D6/524/248/222,205,304/  
211/86,105

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## References Cited [Referenced by]

## **U.S. Patent Documents**

|                  |                |          |         |
|------------------|----------------|----------|---------|
| <u>840,618</u>   | January, 1907  | Golombek | 248/205 |
| <u>979,436</u>   | December, 1910 | Corbin   | 248/205 |
| <u>2,505,899</u> | May, 1950      | Jobe     | 248/206 |
| <u>2,911,179</u> | November, 1959 | Hammerly | 248/339 |
| <u>4,346,501</u> | August, 1982   | Saiya    | 24/329  |

|                  |                |           |          |
|------------------|----------------|-----------|----------|
| <u>D274,026</u>  | May, 1984      | Boroch    | D6/548   |
| <u>4,699,279</u> | October, 1987  | Spira     | 211/89   |
| <u>4,840,341</u> | June, 1989     | Hasegawa  | 248/316  |
| <u>4,907,771</u> | March, 1990    | Wang      | 248/222  |
| <u>4,943,026</u> | July, 1990     | Gerhard   | 248/339  |
| <u>D310,147</u>  | August, 1990   | Aaron     | D6/524   |
| <u>5,026,012</u> | June, 1991     | Wang      | 248/222  |
| <u>5,076,523</u> | December, 1991 | Wang      | 248/222  |
| <u>5,356,102</u> | October, 1994  | Blumenaus | 248/205  |
| <u>5,711,434</u> | January, 1998  | Adams     | 211/86   |
| <u>5,967,476</u> | Oct. 1999      | Chen      | 248/304  |
| <u>6,131,864</u> | October, 2000  | Schumann  | 248/304  |
| <u>6351869</u>   | March 2002     | Jones     | 15/209.1 |
| <u>6,352,229</u> | March, 2002    | Adams     | 248/316  |
| <u>6,367,638</u> | April, 2002    | Goujian   | 211/105  |
| <u>D458/535</u>  | June 2002      | Henderson | 248/304  |
| <u>6,491,271</u> | December, 2002 | Adams     | 248/206  |

I hereby claim;

1. A magnetic holding device comprising:
2. A two part device comprising two elongated parts made of non ferrous material and containing a magnet in one of the said two parts and a ferrous material slug in the other of the said parts, or a magnet in each of the said two parts, in order to attract one said part to the other at a given mating point.
3. The magnets or ferrous material and magnet are imbedded in the said non-ferrous elongated parts in order that the said two parts will be magnetically attracted at only one specific mating area of each of the said parts. The strength of the magnet or magnets is to be determined by the weight of the object or objects to be held.
4. A hinge area is integrated into each of the said two parts, where said hinge design allows one of the said parts to be attached to, or mounted on a surface, and which allows the other of the said two parts to be freely movable around the said hinge point.
5. The said two parts to be shaped in such a manner as to allow room for extra material to be held above the magnetic contact areas..
6. The shape of each of the two said parts is such that it is easy to put the material to be held into the holding device, thereby making it unnecessary to use both hands to operate it.
7. The design of the holding device is intuitive and as such it needs no instructions on how to use it.
8. The holding device keeps continuous even pressure on what it is holding, without the use of springs.
9. The holding device is self centering so that said elongated part used for mounting and said second elongated part have the said specific contact areas always in correct alignment.
10. The holding device is safe to use because it has no springs and therefore cannot snap back from an extreme open position and harm the user.

## BACKGROUND OF THE PRESENT INVENTION

Heretofore, towel hangers and wall attached clothing hangers used smooth hooks or protruding rods as is exemplified by US Pat. # D274,026 Boroch May 29, 1984 over which one could hang a towel or a mounted ring, exemplified by US Pat. # 5,026,012 Wang, Jun. 25, 1991 through which a towel could be placed. A shirt or other cloth object can also be hung on a wall mounted hook such as U.S. Pat # D458,535, and U.S. Pat # 5,967,476 and U.S. Pat # 6,131,864. There are also towel holding devices using flexible finger like projections inwardly located within a circle in order to hold, or grip the towel (patent pending, see last page of this document for photograph) until the next use. Some prior art used special towels with button hole like areas to fit over the hook or protrusion as in U.S. Pat. # 6,351,869 Jones, others have made a magnet which can be attached to a towel so that it can be placed against a steel refrigerator or other flat ferrous metal object. Others have used spring loaded holding devices which grip the towel or other soft objects, such as U.S. Pat # 840,618, and 979,436, and 2,505,899 and 4,840,341. In order to hang rigid material the material had to have a hole, flange or the like to have the object stay on the hanger. The spring loaded devices which are little more than modifications of a clothes pin, could be used to hold rigid materials and are being used to hold paper in office situations. Some prior art uses weighted hinged device in which the towel can be held just by the weight of the outer portion which has an area indented on the mounting side and a mating surface on the outer portion.

Unfortunately, there are many negative unexpected results from the use of the aforementioned devices. For instance the biggest perceived drawback to the smooth hook is that it allows an object that is suspended on the hook to be easily knocked off the hook onto the floor, also the hook can be easily broken by someone grabbing the object being hung and pulling in the wrong way. The ring style towel holders are not generally used to hang anything except a towel and are not generally good for any other use. The towel gripper with the inwardly protruding fingers works well but wears out in just a few months of use. This prior art has lost its place in the market because the amount of returns to the retailer has been excessive. Spring loaded devices generally speaking have two drawbacks. The springs can rust and become weak or break. Spring loaded devices can cause physical harm if the device is opened to its limit and released suddenly. These devices have become unpopular for two reasons. One, they have a tendency to tear or rip towels that are not new and two, it takes two hands to operate them. Weighted devices cannot be used in any manner except vertical and has the drawback of not being useful for any object other than a towel and have been shown to not have broad acceptance in the market place.

## **SUMMARY OF THE INVENTION**

The present invention achieves superior results and overcomes the problems of the heretofore prior art and relates to holding devices for used to hold towels, paper, clothing, disposable exam gowns or any fabric or plastic material such as but not limited to, an exposed x-ray film, which needs to be held in place temporarily. And, in particular to holding devices which use opposing sides to grip what is being held between those opposing sides and relates more particularly to holding devices which have adjacent mating surfaces which are kept in position by a common hinge point.

The general object of the invention is to provide an easy to use device for temporarily holding material in its grasp so as to prevent the material from falling on the ground, floor or other places which would be inappropriate.

Another object of the invention is to provide a holding device which is attractive enough to place in any part of a home or office.

It is a further object of the invention to provide a holding device which has enough longevity so as to have little chance of wearing out in an owners lifetime.

It is a further object of the invention to provide a holding device which, during the insertion into or removal from, will not tear or damage the object being held.

It is a further object of the invention to make a holding device in which springs are unnecessary.

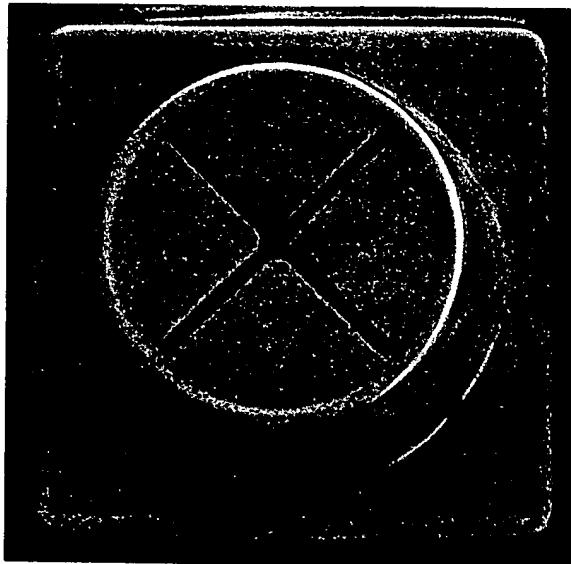
It is a further object of the invention to provide a holding device which is safe to use.

Other objects and advantages of the invention will be apparent from the following disclosure.

The unique holding device disclosed herein is an inexpensive to make uncomplicated device which can be made in various sizes and out of various non ferrous materials, thereby accommodating the user and purpose. The unique holding device is easy to operate and is attractive enough not to have to be stored when not in use. The unique holding device can be used in the bathroom, kitchen, on the patio, in a cabana or other suitable places in the home or in places of business. Its unique design makes it useful as a holder for a shower curtain, as well as a robe, bath towel, kitchen towel, papers and paper objects but is not limited to the same. The holding device is suitable for use in prisons or mental institutions because it would be difficult to harm oneself with it.

Prior art:

A photograph is displayed here to show prior art for which no patent has been issued, except a foreign patent. The foreign patent number is not listed on the package.



This object is mentioned in the background of the present invention "There are also towel holding devices using flexible finger like projections inwardly located within a circle in order to hold, or grip the towel until the next use."

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## **SUMMARY**

I provide a simple to operate, inexpensive, attractive, long lasting, two part magnetic holding device which can be made of any suitable non ferrous material and having an inner mounting side and a self centering, self aligning, outer side and inner side, between which an object can be inserted and held in place. The holding device is made so that the outer portion can move freely around the corrosion resistant hinge pin, thus, only one hand is required to operate it. An object can be slid into place between the matching magnetized surfaces, or the outer portion can be lifted and dropped onto the object to be held by the magnetic force. The holding device has no particular size or strength and can be produced to hold many different kinds of products or items and hold them in place until removed deliberately. It can be made small enough and of the correct magnetic strength to hold a single piece of note paper or large enough and magnetically strong enough to hold a wet swimming pool or beach towel. The holding device can be mounted side ways in a shower/tub combination and will hold the shower curtain in place as well.

## **BRIEF SUMMARY OF THE VIEWS OF THE DRAWING**

**Fig 1.** Top view of the holding device closed.

**Fig 2.** Side view of the holding device closed.

**Fig 3.** Bottom view of the holding device closed.

**Fig 4.** Expanded view of the holding device open

## **DETAILED DESCRIPTION OF THE INVENTION**

Referring to fig. 1, Shows the outer part top view 1. with hole plug covering magnet attractor in place 2., and self alignment bar set in hinge point 3.

Referring to fig. 2, Shows hinge pin placement 4., flat mounting side of first portion 5., double curve or first portion 6., magnetic attractor in mounting portion 7., magnetic attractor in outer portion 8. double curve of outer portion 9., contact surfaces for holding materials 10.

Referring to fig. 3, Shows bottom view of mounting portion with plug cover 11., with hole plug covering the magnetic attractor in the first portion 12., Shows the receiving space for the alignment bar of the first portion 13.

Continued on the following page.

## **DETAILED DESCRIPTION OF THE INVENTION CONTINUED**

Referring to fig. 4, Shows oblique expanded view of top of outer part of second portion 14., with self alignment bar 15., receiving groove for self alignment bar 16., hinge pin 17., recessed area for material 18., flat edge of mounting side 19., opposing mating surfaces 20., receptacle hole for magnetic attractor, mounting portion 21., receptacle hole for hinge pin, mounting portion 22., receptacle hole for hinge pin, outer portion 23., and receptacle hole for magnetic attractor outer portion 24.